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SUBSTITUTE SPECIFICATION: CLEAN COPY

INS C17
LINING FOR COLUMNS OF AUTOMOBILES

[0001] The invention relates to a lining for columns of automobiles, comprising a base area with fixing and holding elements and at least one opening area, covering an airbag, for example.

[0002] In many automobiles of more recent design, it is common, in addition to the airbags which are arranged in the steering wheel cover or in the dashboard on the passenger's side, also to provide side airbags, as they are called, as a supplement, which may be integrated into the side lining of the automobile. For example, side airbags of this type are accommodated in the column lining of the automobiles.

[0003] In this connection, EP 0 894 679 A has disclosed a column lining for columns of automobiles which comprises at least one opening area and at least one fixing area.

[0004] In this case, the fixing area consists of a relatively hard thermoplastic from the group comprising polypropylene, acryl butadiene styrene copolymers and acryl butadiene styrene polycarbonate copolymers with a Shore A hardness greater than 100. On the other hand, the entire opening area consists of a softer thermoplastic with a preferred Shore A hardness of from 60 to 80. By using two thermoplastics of differing hardness, splintering of the column lining when the airbag is triggered or emerges is largely avoided.

[0005] One drawback is simply that the column linings in automobiles in particular are exposed to high temperature loadings or great temperature fluctuations, and the opening area consisting of a relatively soft thermoplastic material cannot meet the strict requirements with regard to dimensional stability.

INS C21
[0006] It is an object of the invention to improve a column lining of the type mentioned at the beginning in such a way that adequate dimensional stability is ensured with simple means.

[0007] According to the invention, this object is achieved by the opening area consisting largely of a thermoplastic material with a Shore A hardness greater than 100 and having a

hinge area, adjoining the base area, consisting of a thermoplastic material with a Shore A hardness of less than 95.

[0008] According to the invention, a large part of the opening area can thus consist of the same thermoplastic material as the base area and can be produced with the latter in one operation. Only a hinge area of the opening area, integrated into the base area, consists of a softer thermoplastic material with a Shore A hardness of less than 90. Since the majority of the opening area consists of the harder material, adequate dimensional stability of the lining part can be achieved.

[0009] If the hinge area does not reach as far as the edge of the respective lining part, according to the invention the opening area can be bounded by intended fracture lines, wall thickness reductions, etc. adjoining the hinge area.

[0010] A visually satisfactory appearance is ensured by the base area and the opening area, together with the hinge area, being covered by a unified decorative layer.

Sub C3
[0011] The invention will be explained in more detail below by using drawings. Figure 1 shows a lining according to the invention for columns of automobiles in plan view, and figure 2 shows a section along the line II-II in figure 1 in an enlarged illustration. *CS*

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[0012] The column lining illustrated in figures 1 and 2 has a base area 1 and an opening area 2, the opening area 2 covering an airbag 3, for example. As can be seen from figure 2, the base area 1 has fixing and holding elements 4, with which the lining part can be fixed to the column 5 of the automobile. The opening area 2 largely consists of a thermoplastic material with a Shore A hardness greater than 100, only a hinge area 6 adjoining the base area 1 consists of a softer thermoplastic material with a Shore A hardness of less than 90.

[0013] The hinge area 6 may reach as far as the outer edge of the lining part or, as illustrated in figure 1, can have intended fracture lines or wall thickness reductions 7 adjoining the hinge area 6.

[0014] The hinge area advantageously consists of a thermoplastic material with a Shore A hardness between 30 and 95, preferably with a Shore A hardness between 60 and 80.

[0015] Suitable materials for the base area 1 are, in particular, thermoplastics from the group comprising polypropylene, ABS and ABS-polycarbonate blends.

[0016] Suitable materials for the hinge area 6 are, in particular, thermoplastic elastomers or elastomer alloys of thermoplastics and elastomers.

[0017] The base area 1 and the opening area 2, together with the hinge area 6, can preferably be covered by a unified decorative layer.
